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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,148	12/08/2000	Guillaume Bichot	PF980074	5718

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THOMSON LICENSING INC.
PATENT OPERATIONS
PO BOX 5312
PRINCETON, NJ 08543-5312

EXAMINER

BARQADLE, YASIN M

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/719,148

Applicant(s)

BICHOT ET AL.

Examiner

Yasin M. Barqadle

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 26, 2005 has been entered.

Response to Amendment

2. The amendment filed on September 26, 2005 has been fully considered but are not persuasive.

- Claims 1-8 are pending.
- Claim 1 has been amended.
- New claim 9 is currently added.

Response to Amendment

Applicant argues in page 6, first paragraph that “Strecker et al mentions that, for example, with respect to the message service, the ‘maximum size message that may be exchanged between ports is determined by prior agreement and at a higher level protocol’ (see col. 12, lines 49 to 52, cited by the Examiner). However, there is no teaching or suggestion in Strecker that this negotiation has any thing to do with the packet buffer size.” Examiner notes the buffer size has every thing to do with exchanged message, because “All transmissions are accomplished between a memory buffer in a transmitting node and a memory buffer in a receiving node. These buffers are in actual memory at each node and are not to be confused with communications

buffers which interface between the communications bus and the other elements in a node, within the data link of the port. Each memory buffer is named and names are of a predetermined, fixed length. Mapping of memory buffer names to actual memory space is implementation-specific. Prior to a transfer, the names, offsets and lengths of buffers in other nodes are determined and exchanged through higher level protocols.” Col. 3, lines 67 to col. 4, line 11). Therefore, buffers are allocated, since each memory buffer is named and names are of a predetermined, fixed length.

Applicant argues in page 7, second paragraph that “While Strecker teaches that the length of the buffers in the buffer memories may be transmitted in one form or another at one point of the process (see col. 4, lines 9 to 15 cited by the examiner), this buffer size is independent of the maximum payload size of the individual packets.” Examiner notes that in Strecker the buffer size and the maximum payload size are interdependent. For example, Strecker teaches “The data transfer mechanism of the present invention provides for the transfer of large blocks of data not limited in size to a single packet. There are, of course, some upper bounds on the number of packets which can be accommodated based on buffer size. A block of data is broken into multiple packets which are individually transferred by the data link layer.” (Col. 13, lines 3-10). Therefore, the payload the can be accommodated depends on buffer size and it must be equal or less so that it can be accommodated. As to how the term packet is used in Strecker see the above quote and (Col. 12, line 46 to col. 13, lines 10).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Strecker et al. (U.S. Patent Number 4,777,595, hereinafter “Strecker”). Strecker discloses an apparatus for transferring blocks of information from one node to a second node in a computer network. Strecker shows,

In referring to claim 1 and 9,

- Opening a connection between said first device and said second device; having said second device allocate a message buffer to said connection, said second device communicating the message buffer size to said first device:

"Prior to a transfer, the names, offsets and lengths of buffers in other nodes are determined and exchanged through higher level protocols. The message packets of the present invention reference only the name, length (in bytes) and offset (i.e., location relative to the starting address of the buffer) into the buffer. Offset mapping is also implementation-dependent." (Strecker, Col. 3, lines 67 to col. 4, line 15 and col. 7, lines 54 to col. 8, lines 22)

- Having said first device transmit said data packet to said second device, wherein said data packet is split and sent as payload in messages, where the size of the payload of each message is smaller or equal to said message buffer size (Col. 13, lines 3-10):

"To write data from a first node to a second node, the first node puts an appropriate number of so-called SNTDAT packets onto the communications bus, each containing a part of the data and labeled with the name of the destination (i.e., receiving) buffer in the second node and the offset in the receive buffer for that particular packet. A transaction identifier unique to the group of packets also is transmitted, for use in the message confirmation process." (Strecker, col. 4, lines 16-24)

In referring to claim 2

- Said payloads have a first maximum length independent of said first and second devices:
A maximum transmission unit (MTU) is inherently implied in a packet switching network
- A second maximum length dependent of said second device is constituted by said message buffer size, the shortest of said first and second maximum lengths being retained for sending messages to said second device:

“Data packet length is discretely variable. All the packets of the transfer except the last should be of an agreed-upon size and the last packet should carry the remainder and be less than or equal to the preceding packets in size.” (Strecker, col. 5, lines 41-45)

A system that has nodes with different buffer sizes and a MTU based on the network, using the smallest of these sizes to send data packets is inherently implied

In referring to claim 3,

- Said connection is opened by said first device through a function call sent to said second device for writing data to said second device:

“To minimize the number of host interrupts, commands can be generated in the receiving port automatically, responsive to a basic command from the sending port, as in the case of generating a confirmation message or performing a READ operation.” (Strecker, col. 5, lines 3-7)

In referring to claim 4,

- Said connection is opened by said second device through a function call sent to said first device for reading data from said first device:

Strecker, col. 5, lines 3-7 (see full quote above)

In referring to claim 5,

- Said first device comprises at least one data storage element for storing said data packet:
Strecker, Fig. 1 shows the first device **14** has a data storage element **25A**

In referring to claim 6,

- Said device comprises more than one storage element, each of said storage elements being identified by an identifier:
Strecker, Fig. 1 shows the first device **14** has data storage elements **25A** and **25B**

In referring to claim 7,

- Said second device comprises at least one data storage element for storing said data packet:

Strecker, Fig. 1 shows the second device 16 has a data storage element 24C

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strecker in view of Muller et al. (U.S. Patent Number 6,021,132, hereinafter "Muller"). Although Strecker shows substantial features of the claimed invention, Strecker does not show the buffers are dynamically allocateable. Nonetheless this feature is well known in the art and would have been an obvious (addition/modification) to the system disclosed by Strecker as evidenced by Muller. In analogous art, Muller discloses a shared memory management in a switched network element. Muller shows: "The shared memory manager dynamically allocates buffers on behalf of the input ports and tracks ownership counts for each of the buffers based upon information provided by the input ports and the output ports." (Muller, col. 2, lines 49-52). Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Strecker so as to dynamically allocate memory to the memory buffer, such as taught by Muller, in order to efficiently allocate memory to operations that need it.

Conclusion

The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR system. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YB

Art Unit 2153



GLENN B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100